What is claimed is:

[Claim 1] 1. An aeronautical ground lighting system lighting system comprising:

a system power supply;
a central control unit; and
a plurality of lighting installations, each of the lighting installations being connected to the system power supply in parallel with the other lighting installations and comprises light emitting means and an installation control unit having a data connection to the central control unit capable of receiving signals therefrom, and the installation control unit being arranged to control brilliancy of the light emitting means in response to signals received from the central control unit.

[Claim 2] 2. The lighting system of claim 1, in which the light emitting means comprises at least one light emitting diode (LED).

[Claim 3] 3. The lighting system of claim 1, in which each installation control unit is arranged to vary a level of light emitted by the light emitting means between a plurality of non-zero brilliancy levels.

[Claim 4] 4. The lighting system of claim 1, in which each installation control unit is capable of extinguishing the light emitting means.

[Claim 5] 5. The lighting system of claim 1, in which the light output of each light emitting means is substantially independent of a voltage supplied by the system power supply to the relevant lighting installation over a range of voltages about a predetermined nominal voltage.

[Claim 6] 6. The lighting system of claim 5, in which the installation control unit of each lighting installation comprises an installation power supply, which converts the voltage output from the system power supply to a predetermined output voltage and/or current to cause the light emitting means to produce a given brilliancy.

[Claim 7] 7. The lighting system of claim 6, in which the installation power supply is a switched mode power supply.

[Claim 8] 8. The lighting system of claim 1, in which the system power supply is linked to the lighting installations by means of at least one power cable, in which the power supply provides a center-tapped voltage across the at least one power cable.

[Claim 9] 9. The lighting system of claim 1, in which the central control unit is provided with an installation control link through which it instructs the lighting installations.

[Claim 10] 10. The lighting system of claim 9, in which the installation control link comprises a field bus.

[Claim 11] 11. The lighting system of claim 9, in which the installation control link comprises an RS485 series link.

[Claim 12] 12. The lighting system of claim 9, in which the installation control link is any one of the following: WORLDFIP; CAN; PROFIBUS; MODBUS; INTERBUS-S; any suitable field bus protocol described in the international standard IEC 61158 and/or European standard EN 50170.

[Claim 13] 13. The lighting system of claim 9, in which the installation control link comprises the power cable connecting the lighting installation to the power supply.

[Claim 14] 14. The lighting system of claim 13, in which the installation control link comprises a MODEM at the central control unit and a MODEM at the lighting installation.

[Claim 15] 15. The lighting system of claim 1, in which each lighting installation is provided with feedback means for monitoring at least one characteristic of the light emitting means.

[Claim 16] 16. The lighting system of claim 15, in which the feedback means is operative for communicating with the central control unit in order to provide a user with feedback that the lighting installation is functioning correctly.

[Claim 17] 17. The lighting system of claim 15, in which the at least one characteristic includes any of the following group: current passing through the light emitting means; a brilliancy level being emitted by the light emitting means; and a temperature of the light emitting means.

[Claim 18] 18. The lighting system of claim 1, in which the control unit and the power supply are housed within a structure in a locality of the lighting installations.

[Claim 19] 19. The lighting system of claim 1, in which an interface is provided, whereby a user selects a brilliancy level or illumination of the lighting installations.

[Claim 20] 20. The lighting system of claim 19, in which the interface is located within an airfield visual control room.

[Claim 21] 21. The lighting system of claim 1, in which the lighting installations are located discretely over an area of an airfield.

[Claim 22] 22. A lighting installation for use in an aeronautical ground lighting system, comprising light emitting means; a communication interface arranged to have a data connection made thereto; an installation control unit adapted to control brilliancy of light emitted by the light emitting means in response to data received at the communications interface; and a substantially constant voltage supply for powering the lighting installation.

[Claim 23] 23. The lighting installation of claim 22, in which the lighting installation is constituted such that a brilliancy level emitted by the light emitting means is independent of a voltage supplied to the lighting installation.